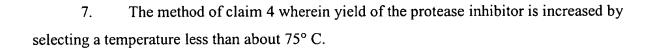
## What is claimed is:

- 1. A method for adjusting the yield and purity of a proteinase inhibitor isolated from tissue of a plant, comprising the steps of:
  - by preparing a mixture of solvent and comminuted plant tissue to form a solid fraction and a liquid fraction comprising the protease inhibitor and other protein products;
  - (b) heating the liquid fraction to a temperature and for a time period sufficient to denature at least some of the other protein products without substantially denaturing the protease inhibitor;
  - affect the purity and yield of the protease inhibitor; and
  - (d) removing the denatured protein products to prepare a clarified extract solution.
- 2. The method of claim 1 wherein the solvent comprises formic acid and sodium chloride.
- 3. The method of claim 2 wherein the solvent comprises about 0.5% to about 2.5 % formic acid and 0 to 3.0 N sodium chloride.
- 4. The method of claim 1 wherein heat treating the filtrate is conducted at between about 60° to about 90° C
  - 5. The method of claim 4 wherein heat treating the filtrate is conducted for between about 30 to about 180 minutes.
  - 6. The method of claim 4 wherein purity of the protease inhibitor is increased by selecting a temperature greater than about 75° C.



- 8. The method of claim 1 wherein as the temperature of the heat treatment step is increased, the duration of the heat treatment step is decreased.
- 9. The method of claim 1 wherein as the temperature of the heat treatment step is decreased, the duration of the heat treatment step is increased.
- 10. The-method of claim 1 wherein the step of removing the denatured proteins is carried out by centrifugation.
- 11. The method of claim 1, further comprising filtering the clarified extract to remove protein impurities having a molecular weight below that of the proteinase inhibitor.
- 12. The method of claim 11 wherein filtration is conducted on an open, screenchannel membrane having a molecular weight cut-off rating of about 5 KD to about 10 KD.
- 13. The method of claim 1 wherein a buffer solution comprising an aqueous solution of ammonium bicarbonate is added to the clarified extract prior to filtration.
- 14. The method of claim 13 wherein the buffer is between about 50 and about 500 mM ammonium bicarbonate.
- one-fifth of the starting volume during filtration.
- 16. The method of claim 15 wherein the filtration step further comprises washing with up to ten volumes of filtration buffer.